



Ceres, the Goddess of Agriculture, once again sits atop the golden dome of the Vermont State House after being carved by a local sculptor in 2018.

VERMONT AGENCY OF AGRICULTURE, FOOD & MARKETS **2019 LEGISLATIVE SUMMARY**

January 15, 2019

VERMONT PRODUCE PROGRAM



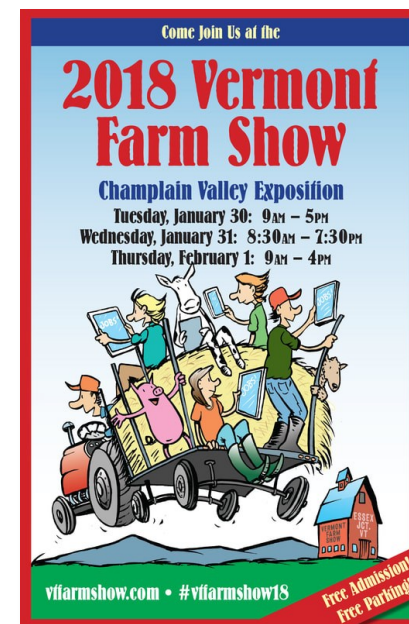
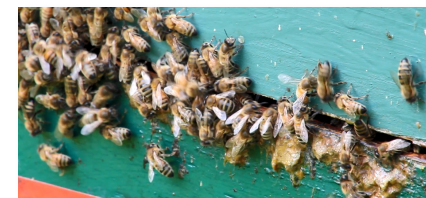
FarmFirst
Resources and support for farmers



CONTENTS...

...PAGE

SECRETARY'S MESSAGE	3
WATER QUALITY DIVISION	4
FINANCIAL ASSISTANCE PROGRAMS.....	4
INSPECTION AND ENFORCEMENT.....	5
EDUCATION & OUTREACH	6
VT PHOSPHORUS INNOVATION CHALLENGE.....	7
FOOD SAFETY & CONSUMER PROTECTION DIVISION	8
WEIGHTS & MEASURES SECTION	8
MILK & DAIRY SECTION	9
MEAT INSPECTION SECTION	10
ANIMAL HEALTH SECTION.....	11
AGRICULTURE DEVELOPMENT DIVISION	12
WORKING LANDS ENTERPRISE INITIATIVE.....	13
FARM TO SCHOOL/CHILD NUTRITION.....	14
PRODUCE PROGRAM.....	15
VERMONT MAPLE INDUSTRY.....	16
OTHER DIVISION PROGRAMS.....	17
PUBLIC HEALTH & AG RESOURCE MANAGEMENT.....	18
HEMP PROGRAM.....	18
TICK MONITORING PROGRAM.....	19
EMERALD ASH BORER.....	20
APIARY SECTION.....	21
VERMONT AGRICULTURAL & ENVIRONMENTAL LAB.....	22
ADMINISTRATION—VARIOUS PROGRAMS.....	23
VISIT WWW.AGRICULTURE.VERMONT.GOV TO VIEW THE VAAFM WEBSITE	



Dear Vermont Legislator,

"When Ceres was removed from the top of the State House for repairs in early 2018, it gave us a chance to appreciate the symbolism she represents. As the Goddess of Agriculture, our founders recognized the important place our farmers held in the culture of Vermont when the statue was first placed there in 1858.

For the Vermont Agency of Agriculture, Food & Markets, our state's farmers continue to hold that valued place in our culture. When Ceres was returned to the top of the golden dome, we reminded folks that without agriculture, there is no food; without our farmers, there is no working landscape; without our proud farming families and communities, Vermont would not be the state that it is today.

In this summary report, we will emphasize important statistics and programs that support our agricultural community and environment. However, in the spirit of Ceres, we also hope this report emphasizes the important cultural contribution our farmers provide to our state. Behind every number are people and communities working to keep Vermont the special place that we have all grown to love, that makes us proud, and we want to raise our families in.

Thank you for your service to Vermont."

Anson Tebbetts

SECRETARY'S MESSAGE



Anson Tebbetts is a life-long Vermonter born in Cabot, Vermont. He and his family still live on the family farm along Tebbetts Road in Washington County. His parents and grandfather ran a traditional dairy, converting to an organic operation until his father's death in 2001.

 **VERMONT**
AGENCY OF AGRICULTURE, FOOD & MARKETS
www.Agriculture.Vermont.gov

FARMER FINANCIAL ASSISTANCE

7162 ACRES

IMPROVED WITH FARM AGRONOMIC PRACTICES

87 BMP's

BEST MANAGEMENT PRACTICES INSTALLED

\$3.2 MILLION

STATE EXPENDITURE FOR ON-FARM IMPLEMENTATION

NEARLY \$1 MILLION

INVESTED BY VERMONT FARMERS



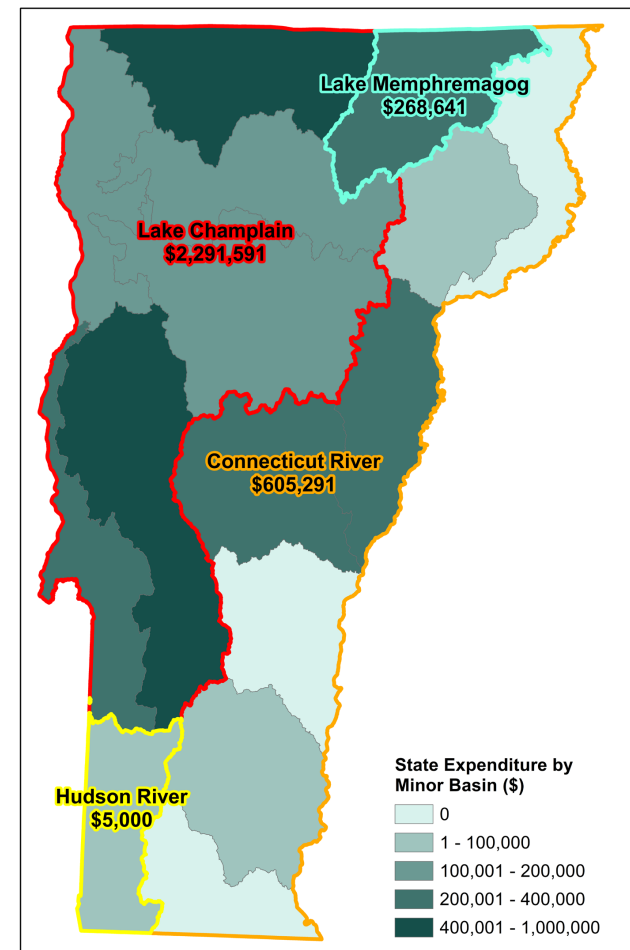
Before (left) and after (right) installation of heavy use area protection and clean water diversion project on a small farm in Swanton , VT completed through BMP Program.

WATER QUALITY DIVISION

While regulation of agricultural operations provides a legal mechanism for oversight of farms, the goal is to improve water quality in Vermont and reduce nonpoint source nutrient loading from agriculture. The Water Quality Division administers multiple financial assistance (FA) opportunities for farmers in Vermont.

In FY 2018, the Water Quality Program invested more than \$3.2 million of State funds in on-farm implementation of conservation practices to improve water quality. Vermont farmers invested just under \$1 million in cost-share contributions towards implementation of these projects.

FY18 ON-FARM IMPLEMENTATION BY MAJOR AND MINOR BASIN

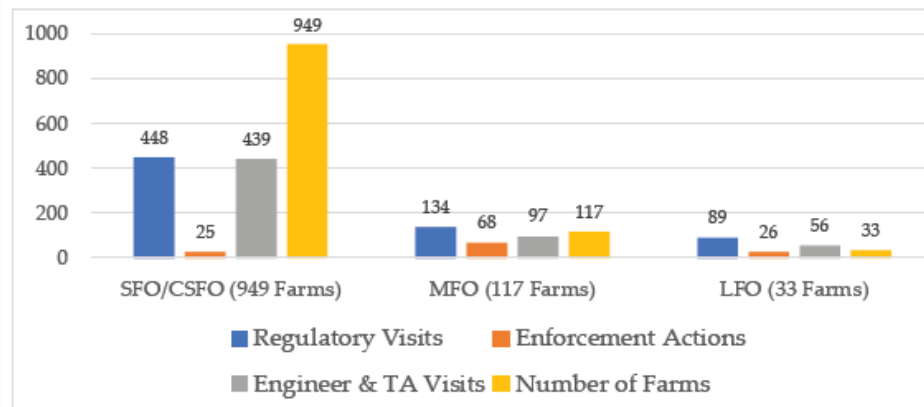


VERMONT
AGENCY OF AGRICULTURE, FOOD & MARKETS

INSPECTION & ENFORCEMENT

The Vermont Agency of Agriculture, Food and Markets (VAAFM) has developed a comprehensive approach to the regulation of farms in the State in order to best protect water resources. The approach to regulating Vermont farms addresses all size farms, providing size specific regulatory oversight from a small farm subject to regulation under the Required Agricultural Practices (RAPs) Regulations, to a Medium Farm Operation (MFO) regulated under the state's MFO General Permit, to a Large Farm Operation (LFO) regulated under a LFO Individual Permit.

FISCAL YEAR 2018 FARM VISITS AND ENFORCEMENT BY FARM SIZE



FY '18 WATER QUALITY VISITS TO FARMS = 675
TOTAL HOURS ON FARM = 2938

SUMMARY OF ENFORCEMENT ACTIONS AND REFERRALS 2016-2018

YEAR	INVESTIGATIONS & INSPECTIONS	ENFORCEMENT ACTIONS	REFERRALS TO ATTORNEY GENERAL'S OFFICE	REFERRALS TO AGENCY OF NATURAL RESOURCES
2016*	379	38	1	1
2017*	505	82	2	18
2018	652	119	7	32

**Data reported for 2016 and 2017 reflect calendar year reporting, whereas 2018 data reflects state fiscal year data. Previous reporting for this work was done on a calendar year basis and is now transitioned into fiscal year reporting.*

24 NOTICES

OF VIOLATION WHICH ASSESSED ASSOCIATED
 MONETARY PENALTIES TOTALING \$70,500

119 ACTIONS

ENFORCEMENT ACTIONS ASSOCIATED WITH
 224 INDIVIDUAL COUNTS OF ALLEGED VIOLATIONS

5 AVERAGE FARM VISITS PER DAY

WATER QUALITY DIVISION PERSONNEL

REFERRED 32 CASES

TO THE AGENCY OF NATURAL RESOURCES,
 DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

REFERRED 7 CASES

TO THE VERMONT ATTORNEY GENERAL'S
 OFFICE WHICH ASSESSED ASSOCIATED MONETARY
 PENALTIES OF \$115,831.

EDUCATION, OUTREACH & TECHNICAL ASSISTANCE

PROGRAM IMPACTS

15,420 ATTENDEES

REACHED THROUGH EDUCATIONAL EVENTS

1,112 HOURS

OF EDUCATIONAL OPPORTUNITIES FOR VT FARMERS

366 EVENTS

EDUCATIONAL EVENTS HELD STATEWIDE

5.83 FTE

PARTNER FULL TIME EQUIVALENT (FTE) EMPLOYEE
CAPACITY INCREASE

80 SERVICES

NEW OR EXPANDED PARTNER PROVIDED SERVICES
AVAILABLE TO VT FARMERS

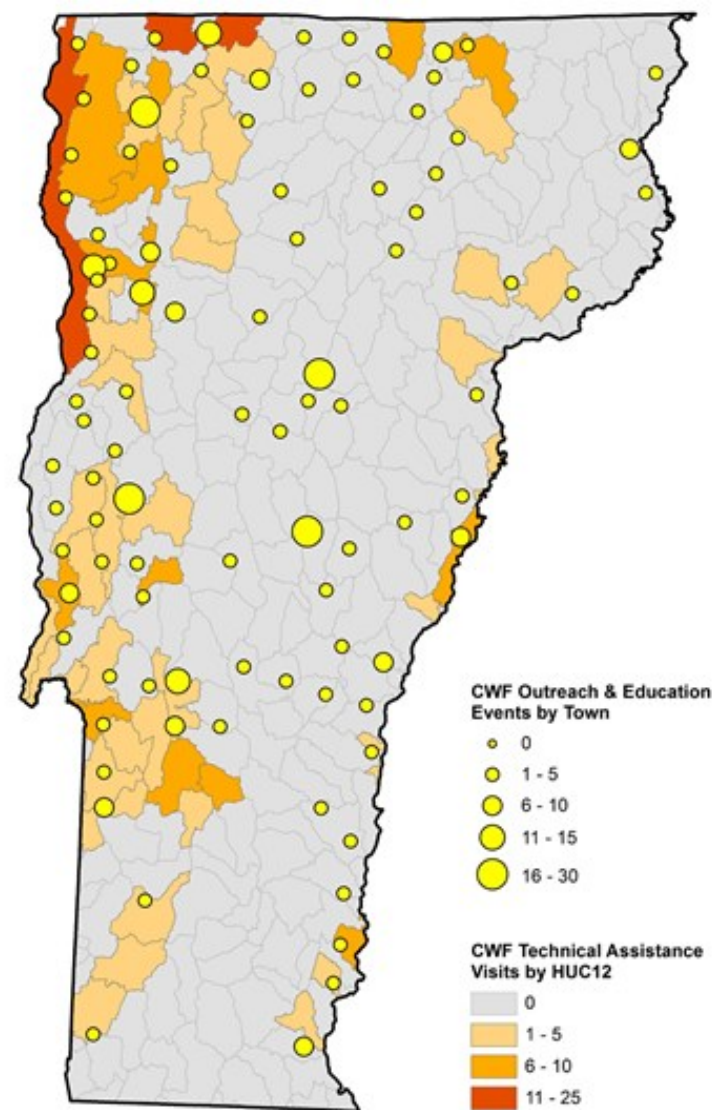
**Program impact includes results from FY16-FY18.*

The Water Quality Division within the Vermont Agency of Agriculture, Food and Markets (VAAFM) is responsible for ensuring farms meet the State agricultural water quality non-point source regulations. VAAFM performs this task through the use of regulatory, technical, and financial assistance programs provided to farmers and partner organizations.

The Agricultural Clean Water Initiative Program (Ag-CWIP) represents the Agency of Agriculture, Food & Markets' effort to reduce nonpoint source nutrient pollution from agricultural land through grant awards for educational programs, innovative phosphorus reduction strategies and technical assistance to agricultural landowners.

In FY 2018, the Water Quality Program invested \$3.8 Million in funding for local conservation efforts, educational programs, as well as technical assistance for Vermont farmers.

AGRICULTURAL CLEAN WATER FUND (CWF) PROGRAM EDUCATIONAL EVENTS AND TECHNICAL ASSISTANCE STATEWIDE



WATER QUALITY DIVISION

VT PHOSPHORUS INNOVATION CHALLENGE



Using this innovative method of identifying solutions to problems or challenges, we hope to identify one or more technologies that could help mitigate the impact of phosphorus in our watershed by ensuring that the right amount of phosphorus is applied to the soil at the right time and in the right place, which will in turn minimize losses to our rivers, lakes, ponds and streams.



With 27 initial proposals, followed by 12 in-person presentations to the VPIC Evaluation Team in early September 2018, the VPIC is formally progressing to stage two with awards to six different applicants (listed right).

Stage two involves a total \$250,000 of funding to be allocated to the proposals for prototyping, business case development, and a demonstration of the proposed technology over the course of several months. The initial funding allocated through stage two has been split to allow for effective prototyping and business case development, which varies for each proposal. Upon stage two completion, stage three will involve full scale implementation of one or more of the stage two projects. Stage three selections will focus primarily on estimated cost per pound of phosphorus mitigated, and then consider ways to repurpose phosphorus as a part of a value-added product, creating economic development opportunities.

WATER QUALITY DIVISION

VPIC STAGE TWO SELECTED PROJECT PROPOSALS

- **DVO, Inc. and University of Vermont (UVM) – Chilton, WI – \$45,000**

Thirteen anerobic digester vessels situated statewide will be utilized with enhancements for solids control using Dissolved Air Floatation (DAF) processes and will develop a 'p-cake' product.

- **Rock Dust Local, LLC – Bridport, VT – \$25,000**

Manufacture, apply, and study mineral and mineralized bio-carbon soil amendments (aka Biochar) deployed in the field to manage solution reactive phosphorus (SRP) and nitrogen loss through broadcast field applications, animal bedding admixtures and in-situ filtration media.

- **Green State Biochar – Barton, VT – \$30,000**

Use of local renewable organic waste materials that are processed in an innovative machine developed in Vermont as a prototype pyrolysis machine that produces a sequestered carbon product called Biochar.

- **Agrilab Technologies Inc. – Enosburg Falls, VT – \$50,000**

Use of a combination of existing phosphorus (P) recovery technologies, composting and drying equipment, and associated best management practices to demonstrate the technical feasibility of stabilizing and adding value to recovered "p-cake" and similar materials.

- **Digested Organics – Ann Arbor, MI – \$45,000**

Use ultrafiltration system on a Vermont dairy farm to remove most of the present phosphorus, suspended solids and pathogens in liquid manure, producing a transparent liquid ideal for field application.

- **Village of Essex Junction, CSWD and UVM – Essex Junction, VT – \$45,000**

Use of proprietary pipe descaling technology (PDT) to effectively remove phosphorus in Vermont sized wastewater applications. The technology uses an induced electric field of variable amplitude and frequency that can promote precipitation of crystalline minerals (struvite) without the dangerous and damaging adhesion to pipes, pumps or in tanks.

More Information can be found on the VAAFM website at

https://agriculture.vermont.gov/Vermont_Phosphorus_Innovation_Challenge

WEIGHTS & MEASURES SECTION

\$80,750 IN PENALTIES

TO BUSINESSES MOSTLY FOR SCALE & PACKAGE VIOLATIONS

200 DMV SCALE INSPECTIONS

USED TO ENFORCE VERMONT ROADWAY WEIGHT LIMITS

13,198 DEVICE INSPECTIONS

ENSURING CONSUMER PRICE PROTECTION

18,585 UPC CODE INSPECTIONS

AT 178 VERMONT BUSINESSES

2194 PACKAGE WEIGHTS CHECKED

NUMEROUS CONSUMER CONCERNS ADDRESSED SUCH AS WEIGHT, FIREWOOD, FUEL QUALITY AND SCANNERS

1950 ROUTINE INSPECTIONS

The VAAFM weights and measures program has undergone significant change during the past year. Staff turnover in management roles has necessitated difficult decision-making pertaining to organizational structure and supervisory structure for field-based employees. Based on the need to maintain efficiency within the Food Safety and Consumer Protection Division, the decision was made during 2018 to establish the weights and measures program as its own section and to RFR the state Metrologist/supervisor into the job of Weights and Measures Section Chief. Implementation of these decisions began in 2018 and will be completed in 2019.

The Weights and Measures section management team worked with legal counsel to provide formal feedback to the Public Utilities Commission regarding regulatory oversight of Electrical Vehicle Charging stations, a burgeoning technology in Vermont supported by the Legislature and the current Administration.

2018 DEVICE INSPECTIONS BY TYPE

Class	Active	Total Insp	Unique Bus	Multiple Insp	App	Rej	Clo	OoS
Small Scale	3237	2421	647	69	2273	50	4	24
Medium Scale	489	284	205	7	260	10	1	6
Vehicle Scale	220	191	142	16	153	17	1	0
Livestock	2	2	1	0	2	0	0	0
Hopper Scales	121	95	37	8	85	1	0	1
Liquid Measuring Device	8050	6417	521	319	5751	217	12	87
Vehicle Tank Meter	653	441	99	10	382	18	12	19
LPG Meters	380	237	53	9	218	9	1	0
Linear Measure	43	23	22	0	22	1	0	0
Onboard Weighing	1	1	1	0	1	0	0	0
Wheel-Load Weigher	2	0	0	0	0	0	0	0



FOOD SAFETY & CONSUMER PROTECTION

2018 DAIRY FARM INSPECTION ACTIVITY

1891	DAIRY FARM INSPECTIONS
409	DAIRY PLANT INSPECTIONS
407	MILK PLANT INSPECTION TESTS
31	ENFORCEMENT INSPECTIONS
768	MILK SAMPLING STOPS
204	MISCELLANEOUS INSPECTIONS (BULK MILK HAULER & TANK TRUCK)
56	TECHNICAL ASSISTANCE VISITS



**FOOD SAFETY
&
CONSUMER PROTECTION**



DAIRY SECTION

The Dairy Section of the Vermont Agency of Agriculture Food and Markets has oversight of the dairy industry in Vermont. There are over 700 dairy farms in Vermont milking cattle, sheep and/or goats, and over 140 firms processing that milk into a variety of dairy products. The Dairy Section is responsible for assuring that sanitation standards are followed to minimize the risk of unsafe products entering the marketplace. The Dairy Section is comprised of a team of dairy specialists qualified to work with all industry sectors along the farm to plate continuum.

The Dairy section now has four members certified to conduct food safety audits and plans to begin audits during winter of 2019. Our farm inspectors attended an in-depth training on robotic milking systems to be able to recognize sanitation issues and know what components are the cause of these issues. This will allow our farm inspectors to continue protecting high quality milk standards but to also be able to give feedback to farmers having quality issues.

2018 DAIRY FARMS BY COUNTY/MONTH

													% change prior month	% change since Jan.	Ave. #
County	Jan.	Feb.	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec			
Addison	110	110	110	110	109	108	108	108	108	106	105	105	0.00%	-4.55%	108
Bennington	13	13	13	12	12	12	12	12	11	11	11	11	0.00%	-15.38%	12
Caledonia	61	61	61	60	59	59	55	55	55	55	55	55	0.00%	-9.84%	58
Chittenden	48	47	46	44	43	42	41	41	40	40	39	37	-5.13%	-22.92%	42
Essex	15	15	15	14	14	14	14	14	14	14	14	14	0.00%	-6.67%	14
Franklin	138	137	134	134	130	128	127	127	126	126	125	125	0.00%	-9.42%	130
Grand Isle	14	14	13	13	13	13	13	13	13	13	13	13	0.00%	-7.14%	13
Lamoille	27	27	27	27	26	25	25	25	25	25	25	25	0.00%	-7.41%	26
Orange	69	68	68	67	67	66	65	65	65	63	64	63	-1.56%	-8.70%	66
Orleans	123	123	122	118	118	119	118	117	117	118	118	117	-0.85%	-4.88%	119
Rutland	54	53	53	55	55	52	52	52	52	52	52	52	0.00%	-3.70%	53
Washington	39	38	38	36	35	34	33	33	33	32	32	32	0.00%	-17.95%	35
Windham	22	22	22	21	21	21	21	21	22	22	22	22	0.00%	0.00%	22
Windsor	29	28	28	28	28	28	28	28	28	28	28	28	0.00%	-3.45%	28
TOTAL	762	756	750	739	730	721	712	711	709	705	703	699	-0.57%	-8.27%	725

2018 LICENSED HANDLERS

4-D Handler	2
Animal Food Manufacturer	7
Broker, Meat or Poultry Products	2
Custom Packing Plant	25
Custom Poultry Slaughterhouse	1
Custom Slaughterhouse	2
Federal Commercial Packing Plant	25
Federal Commercial Poultry Slaughterhouse	5
Federal Commercial Slaughterhouse	7
Public Warehousemen	6
Renderer	4
State Commercial Packing Plant	9
State Commercial Poultry Slaughterhouse	3
State Commercial Slaughterhouse	2
Wholesalers	133
Total	233
Retail Meat Licenses	
Retail Small Meat Processor	304
Retail Large Meat Processor	89
Retail Prepackaged Meat and Poultry	1266
Total	1659

MEAT INSPECTION SECTION

The Meat Inspection Section provides mandatory daily inspection, compliance activities and technical assistance throughout the meat and poultry industry in Vermont, through a cooperative meat and poultry inspection program with USDA's Food Safety Inspection Service (FSIS). The Meat Inspection Service enforces State and Federal laws and regulations to protect the health and welfare of consumers and the public by assuring meat and poultry products produced in Vermont are wholesome, unadulterated, and properly marked, labeled, and packaged.

The true value of the Vermont Meat Inspection Service is providing food safety and inspectional oversight of the industries on behalf of the general public while providing invaluable information and technical assistance to farmers and small processors that wish to maintain a small family operation structure. This allows them to meet the regulatory requirements to compete in the open marketplace throughout the state.

2018 COMPLIANCE ACTIVITIES

469

BUSINESS INSPECTIONS

RESTAURANTS, RETAILERS, PORT-OF-ENTRY, INSTITUTIONS..

12

VIOLATION CASES/INVESTIGATIONS

11

CONSUMER COMPLAINT INVESTIGATIONS

1904

MEAT HANDLER COMPLIANCE CHECKS

73

INSPECTOR/OWNER CONTACTS

51

POUNDS OF PRODUCT DESTROYED

BY VOLUNTARY ACTION OF OWNER

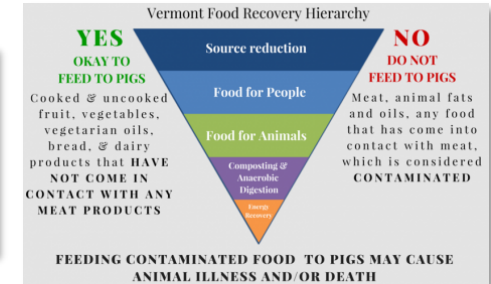
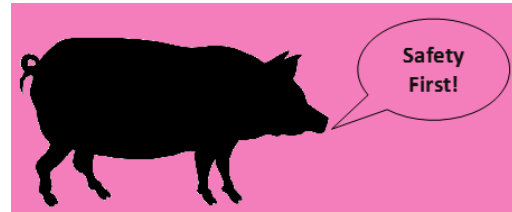
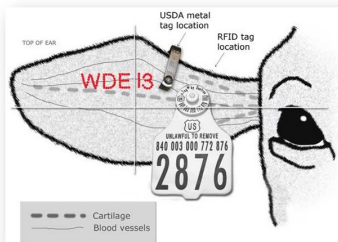
Technical Assistance: At least **40** contacts with new producers and countless contacts with those already licensed and inspected.

ANIMAL HEALTH SECTION

The Animal Health Section of the Vermont Agency of Agriculture, Food, and Markets protects the health and welfare of Vermonters and their livestock and poultry by advancing a safe and secure food supply within a marketplace that provides fair and equal access to consumers and processors while enhancing Vermont's working landscape, rural character and local economies.

The Animal Health Section focused largely this year on updating and improving Vermont's Animal Disease Traceability program, which serves as cornerstone of the state's ability to prevent the introduction of transboundary animal diseases. The Section successfully launched an education and outreach campaign targeted at livestock industry stakeholders, including beef, dairy, and small ruminant producers, livestock dealers and transporters, veterinarians, and slaughter plants. The campaign helped producers achieve compliance with Act 30 by helping them why they needed to use official identification and how they could obtain devices free of charge.

As a result of the Section's education and outreach campaign to implement a sustainable and effective animal disease traceability system, Animal Health Section staff completed on site official identification technical assistance visits to 86 dairy cattle, beef cattle, and swine producers.



2018 COMPLIANCE ACTIVITIES

225,988

LIVESTOCK ID TAGS ISSUED

7,846

POULTRY EXPORT COMPLIANCE CHECKS

13,391

POULTRY IMPORT COMPLIANCE CHECKS

\$3,675

PET SHOP LICENSE FEES COLLECTED

\$13,600

LIVESTOCK LICENSE FEES COLLECTED

\$7,000

ADMINISTRATIVE PENALTIES ASSESSED

29

QUARANTINES IMPOSED

367

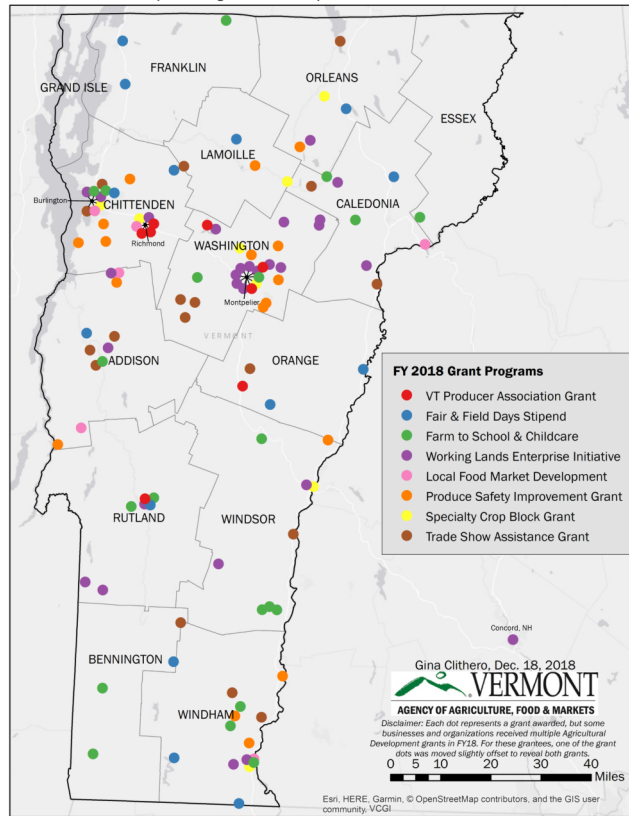
AVIAN INFLUENZA TESTS CONDUCTED

Technical Assistance: was provided at the Livestock Grazing Conference, 14 fairs, 7 bird swaps, consumer emails and calls, and the Level II Humane Investigation Class. .

FOOD SAFETY & CONSUMER PROTECTION

Investing in Vermont's Agricultural Economy

Recipients of Agricultural Development Grants in Fiscal Year 2018



2018 AGRICULTURE DEVELOPMENT INVESTMENTS

AGRICULTURE DEVELOPMENT

The Vermont Agency of Agriculture, Food and Markets (VAAFM) Agriculture Development Division mission is to meet the needs of Vermont's agricultural community by improving food access, agricultural business capacity, consumer awareness, and farmland stewardship. We achieve this by:

- **PROMOTING** Vermont agriculture and products
- **INVESTING** in Vermont agricultural business viability with financial and technical assistance
- **CONNECTING** VT agricultural businesses to resources and market opportunities by convening food system stakeholders
- **INCREASING** access to local foods to support vibrant and viable communities
- **PROTECTING & ENHANCING** the working landscape.

AGRICULTURE DEVELOPMENT INVESTMENTS 2012—2018

\$10,820,734

Grant Program	# grantees	\$ invested
VT Producer Association Grant	8	\$16,000
Fair & Field Days Capital grants	10	\$288,000
Farm to School & Childcare grants	33	\$201,650
Working Lands Enterprise Initiative	28	\$783,573
Local Food Market Development	6	\$50,000
Produce Safety Improvement Grant	17	\$148,029
Specialty Crop Block Grant	12	\$307,887
Trade Show Assistance Grant	16	\$21,523
Totals	130	\$1,816,662

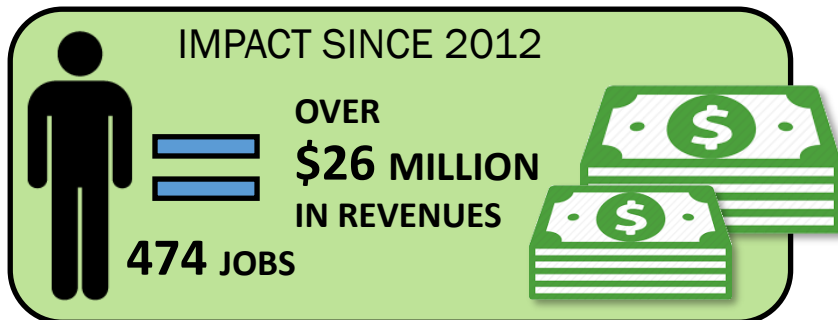
Grant Program	# grantees	\$ invested
VT Producer Association Grant	8	\$16,000
Fair & Field Days Capital grants	53	\$1,112,866
Farm to School & Childcare grants	203	\$1,200,000
Working Lands Enterprise Initiative	184	\$5,300,000
Local Food Market Development	53	\$260,000
Produce Safety Improvement Grant	17	\$148,029
Specialty Crop Block Grant	86	\$2,688,000
Trade Show Assistance Grant	69	\$95,839
Totals	673	\$10,820,734

WORKING LANDS ENTERPRISE INITIATIVE

The Working Lands Enterprise Initiative (WLEI) supports Vermont entrepreneurs by providing financial assistance to help innovate and grow businesses while creating jobs, building infrastructure, and promoting growth in economies and communities of Vermont's working landscape.

WLEI works with the Vermont Community Loan Fund, and the Vermont Economic Development Association to provide zero or low-interest loan programs to Working Lands entrepreneurs. To date, Vermont Community Loan Fund has invested almost \$400,000.

With strong collaboration across three agencies and new staff with experience in the private sector, the Initiative is now poised to increase scale of projects, drive innovation, and add both jobs and revenue growth to agriculture and forestry businesses.



2018 WLEI INVESTMENT ACTIVITY

\$1.5 MILLION PROGRAM DEMAND

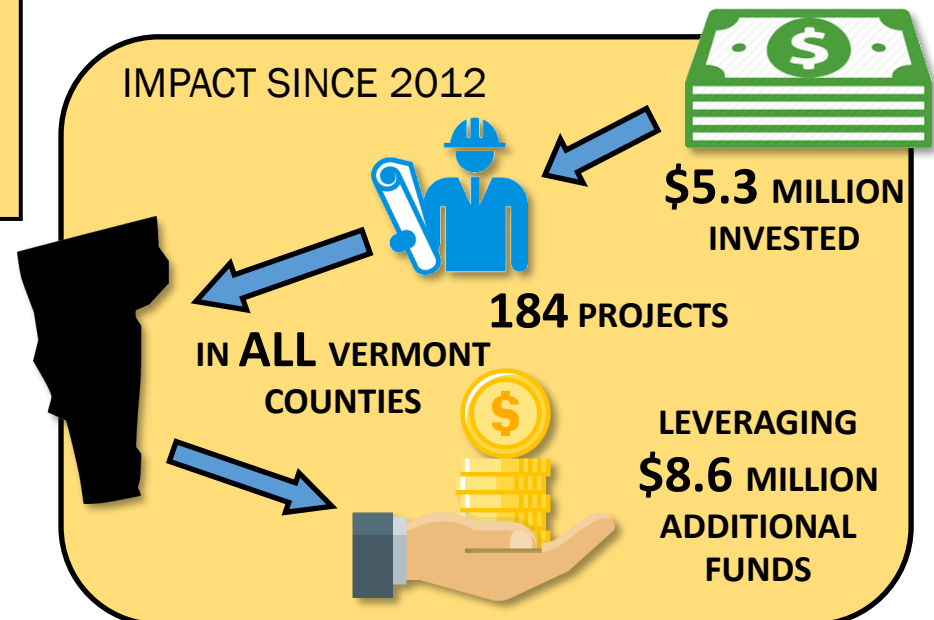
STRONG DEMAND FOR WORKING LANDS BUSINESS EXPANSION AND IMPROVEMENT REFLECTED

\$783,573 AVAILABLE FUNDS INVESTED

IN 28 VERMONT BUSINESSES SUPPORTING THE WORKING LANDSCAPE

21 AGRICULTURE PROJECTS

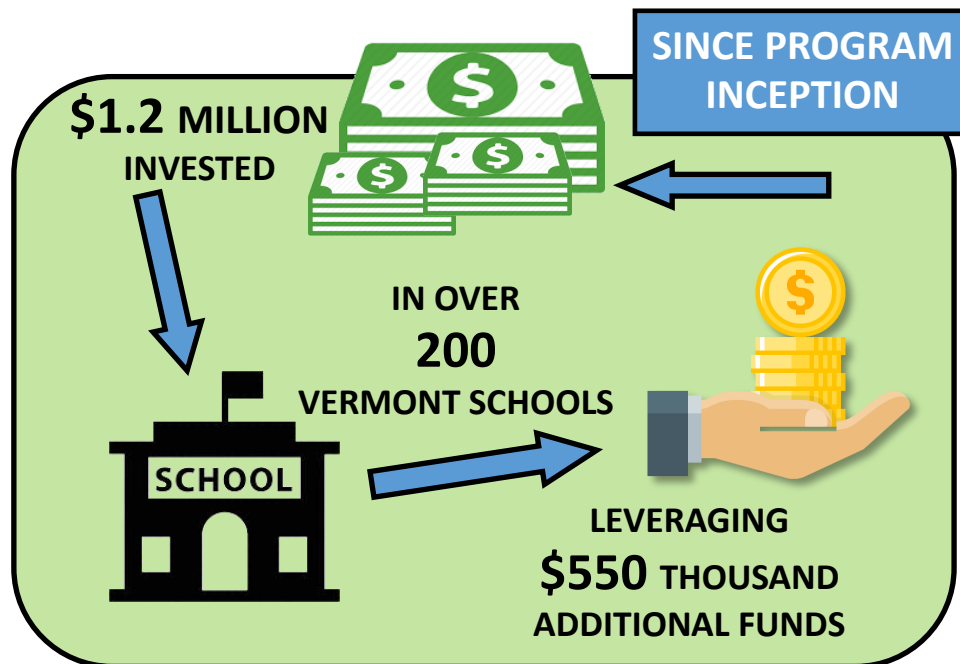
7 FORESTRY PROJECTS



2018 PROGRAM INVESTMENTS

\$201,650 FARM TO SCHOOL INVESTMENT IN
33 SCHOOLS REACHING NEARLY
5,000 STUDENTS

\$22,082 UNIVERSAL MEALS GRANTS PROVIDING
1,388 STUDENTS ACCESS TO 1 FREE MEAL DAILY



FARM TO SCHOOL/CHILD NUTRITION

The Vermont Agency of Agriculture, Food & Markets (VAAFM) has administered the Vermont Farm to School and Early Childcare Grant Program since 2006. Enabled by the Roza McLaughlin Farm to School Act of 2006 (6 V.S.A. § 4721), the grant program helps schools develop and sustain relationships with local producers, enrich the educational experience of children, improve the health of Vermont children, and enhance Vermont's agricultural economy.

Beyond the grant program, the Agency collaborates on several strategic initiatives that aim to increase demand for local food in schools, make farm to school more accessible for Vermont schools, and shape policies that better integrate farm to school into classrooms, cafeterias, and communities. VAAFM provides support for Vermont Farm to School Network in work in a variety of ways that include facilitating meetings, funding projects, conducting research, convening stakeholders, and connecting producers and consumers to resources.



AGRICULTURE DEVELOPMENT

PRODUCE PROGRAM

AGRICULTURE DEVELOPMENT



PROGRAM DETAILS SINCE 2016

The mission of the Vermont Produce Program is to help grow Vermont's produce industry by aiding produce farms of all sizes and stages of development to meet food safety requirements, access markets, and promote public health as sustainable agricultural businesses. In addition, the Produce Program works with partners, distributors, and retailers to clarify expectations around produce safety requirements.

Other areas of program focus are:

- Understand a farm's requirements under the Food Safety Modernization Act (FSMA) Produce Safety Rule.
- Access Produce Safety Resources to grow produce safety on the farm—which can lead to increased efficiency, produce quality, and market access.
- Prepare farms for a FSMA Produce Safety Rule inspection.

The Food Safety Modernization Act (FSMA), enacted in 2011, is the most comprehensive update to our federal food safety laws in over 70 years. The purpose of the law is to ensure a safer U.S. food supply by focusing on the prevention of foodborne illness. Preventable foodborne illness poses threats to both public health and the economy.

\$3.6 MILLION/5-YEAR INITIATIVE

CURRENTLY IN 3rd YEAR—\$1.14 MILLION AWARDED TO VT TO DATE SINCE INCEPTION

\$186,000 AWARDED TO UVM EXT.

30 MONTH ASSISTANCE PROGRAM FOR VERMONT FARMS TO COMPLY WITH FSMA RULE

188 VERMONT FARMS

ENROLLED IN VT PRODUCE PORTAL—ALLOWS SHARING OF INFO BETWEEN FARM & PROGRAM

85 PRODUCE GROWERS TRAINED

IN PRODUCE SAFETY BEST PRACTICES & FSMA PRODUCE SAFETY RULE REQUIREMENTS

\$148,029 AWARDED

FOR 17 PRODUCE SAFETY IMPROVEMENT GRANTS

\$60K ADDITIONAL FUNDS SECURED

FOR VT PRODUCE SAFETY IMPROVEMENT GRANTS



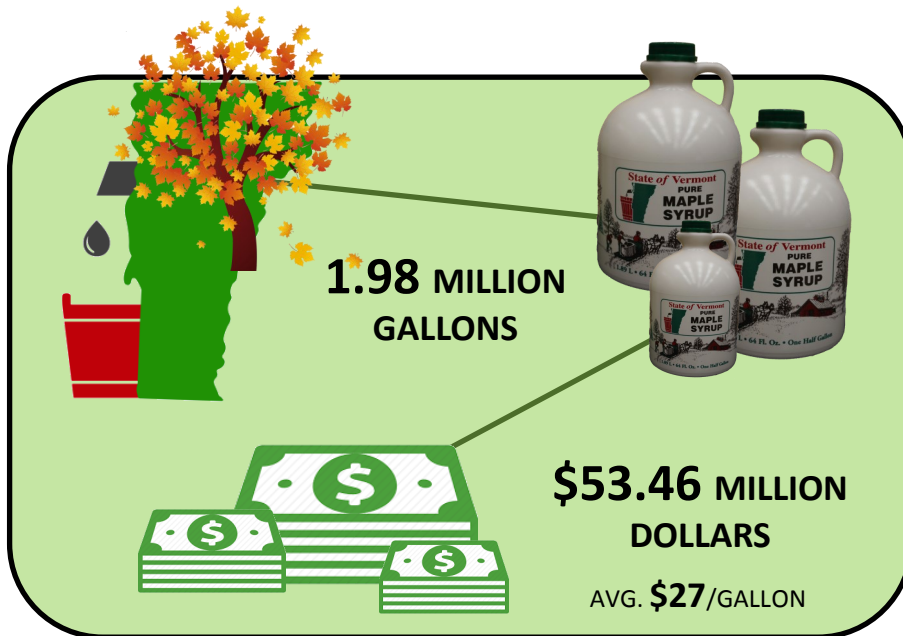
2018 VERMONT MAPLE SEASON STATISTICS

5.67 MILLION MAPLE TAPS IN 2018, 5 PERCENT MORE THAN DURING THE 2017 SEASON

1.94 MILLION GALLONS, DOWN 2 PERCENT FROM 2017, STILL 50% OF U.S. MARKET

YIELD PER TAP ESTIMATED TO BE 0.342 GALLON, DOWN 7 PERCENT FROM 2017

2017 VERMONT MAPLE SEASON VALUE



VERMONT'S MAPLE INDUSTRY

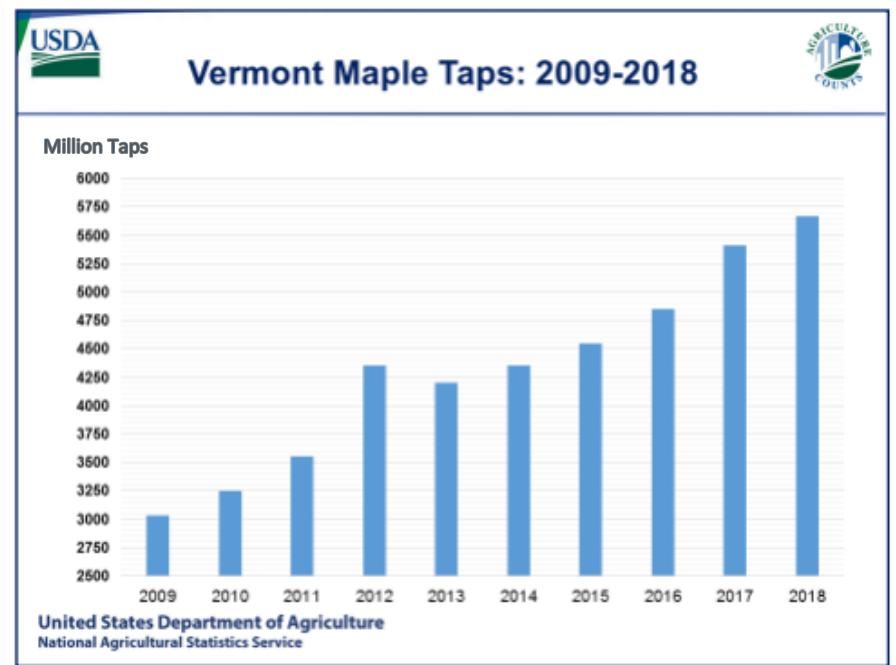
Once again Vermont led the nation in making maple syrup in 2018, producing nearly 2 million gallons of the sweet product. It means about half of the maple syrup produced in the United States is made in the Green Mountains.

2004 – 1 million taps / 2017 – over 5 million taps.

In 2017, Vermont produced **1.98 million gallons of maple syrup**, second highest total on record.

In 2017, Vermont led the country in maple production with nearly **50% of the U.S. crop.**

ACCORDING TO THE USDA, **APPROXIMATELY 4,000 JOBS ARE CREATED AND SUPPORTED BY THE VERMONT MAPLE INDUSTRY.**



AGRICULTURE DEVELOPMENT

THE BIG E (EASTERN STATE'S EXPOSITION)

EACH YEAR, COMPANIES FROM ACROSS VERMONT PARTICIPATE IN THE BIG E, SHARING THEIR PRODUCTS WITH FAIR-GOERS WHO APPRECIATE THE HIGH-QUALITY PRODUCTS ON SALE IN THE VERMONT BUILDING IN WEST SPRINGFIELD, MASSACHUSETTS.

- IN 2018, THERE WERE 28 VERMONT VENDORS AT THE EXPOSITION
- DURING THE 17 DAYS OF THE EXPOSITION, THERE WERE \$1.9 MILLION IN SALES
- FAIR ATTENDANCE = 1,543,380

DIRECT TO CONSUMER MARKETING

THIS PROGRAM GROWS COLLABORATIVE ASSOCIATIONS WITH OTHER STATE AGENCIES, PRODUCER GROUPS AND ORGANIZATIONS TO IMPROVE FARM ACCESS TO RESOURCES AND MARKETS, AND TO INCREASE PROFITABILITY

- PROMOTION OF VT FARMER'S MARKETS AT VERMONT REST AREAS AND INFO CENTERS
- HOSTED AND PROMOTED THE **BUY LOCAL MARKET** AT THE VERMONT FARM SHOW, FEATURING 50 VERMONT VENDORS
- PROMOTED AGRI-TOURISM WITH 40 FARMS AT THE 4TH ANNUAL OPEN FARM WEEK TO OVER 1,000 ATTENDEES

SPECIALTY CROP BLOCK PROGRAM

IN FY'18, THE PROGRAM AWARDED GRANTS TOTALING \$307,877 FOR 12 PROJECTS TO BENEFIT VERMONT PRODUCERS OF FRUITS, VEGETABLES, HERBS AND SPICES, MAPLE WINE GRAPES, AND VALUE ADDED PRODUCTS TO INCREASE CONSUMER ACCESS TO LOCALLY GROWN FOOD.

AGR DEVELOPMENT DIVISION 13 EMPLOYEES IMPORTANT DIVISION EFFORTS

TRADE SHOW ASSISTANCE GRANTS

IN FY 2018, VAAFM AWARDED:

- 16 GRANTS TO 10 BUSINESSES
- \$21,523 INVESTED IN TRADE SHOW MARKETING ACROSS THE COUNTRY
- AS A RESULT, 63 STRONG LEADS WITH AN ESTIMATED LONG TERM REVENUE OF \$18,358 SO FAR.

LOCAL, DOMESTIC & INTERNATIONAL MARKETING

PROVIDES PROMOTION AND SUPPORT TO FARM AND FOOD BUSINESSES WITH THE GOAL OF FOSTERING NEW RELATIONSHIPS WITH BUYERS

- ORGANIZED A VERMONT PAVILION FOR 8 VT BUSINESSES AT THE BAR SHOW DURING THE NATIONAL RESTAURANT ASSOCIATION TRADE SHOW
- VAAFM EXHIBITED AT THE SUMMER FANCY FOOD SHOW IN SUPPORT OF 30 VERMONT BUSINESSES
- PARTICIPATING SPONSOR OF THE GOOD FOOD MERCANTILE IN BROOKLYN, NY, REACHING 600 NATIONWIDE BUYERS, RETAILERS, DISTRIBUTORS AND MEDIA SUPPORTING VT.
- PURCHASED 5 ADS IN EDIBLE MAGAZINE SUPPORTING VERMONT PRODUCTS. AN ESTIMATED REACH OF 2 MILLION READERS.
- SHOWCASED THE LAKE CHAMPLAIN TASTING TRAIL WITH LOCAL PARTNERS AND THE DIG-IN VT WEBSITE. THE TRAIL HIGHLIGHTS CULINARY ATTRACTION IN VERMONT, NY, QUEBEC AND ONTARIO
- \$16,000 IN GRANTS AWARDED TO 8 VT BUSINESSES TO SUPPORT THE DEVELOPMENT OF VERMONT'S ECONOMY AND THE VIABILITY OF OUR WORKING LANDSCAPE.

FAIR GRANTS

IN FY 2018, VAAFM AWARDED:

- \$288,000 TO 10 VERMONT FAIRS AND FIELD DAYS
- SUPPORTED 20-YEAR CAPITAL IMPROVEMENT PLANS
- PROJECTS INCLUDED WATER AND RESTROOM UPDATES—PULLING TRACK IMPROVEMENTS—STORAGE IMPROVEMENTS

LOCAL FOOD MARKET DEVELOPMENT

IN FY'18, \$50,000 IN FUNDING WAS AWARDED TO 6 GRANTEEES TO FOSTER VERMONT PRODUCERS' ACCESS TO WHOLESALE MARKETS AND TO INCREASE THE QUALITY OF LOCAL FOOD AVAILABLE IN VT INSTITUTIONS, RETAILERS AND OTHER VERMONT WHOLESALE MARKETS BY ADDRESSING BARRIERS IN THE SUPPLY CHAIN.

HEMP PROGRAM

PUBLIC HEALTH & AG RESOURCE MANAGEMENT

PROGRAM IMPACTS

461 REGISTERED GROWERS IN **2018**
3290 REGISTERED ACRES IN **2018**
90 REGISTERED GROWERS IN **2017**
580 REGISTERED ACRES IN **2017**
5.5 ACRES AVERAGE CROP SIZE

THE 2018 FARM BILL DEFINES HEMP AS AN AGRICULTURAL COMMODITY AND REMOVES IT FROM THE LIST OF CONTROLLED SUBSTANCES.

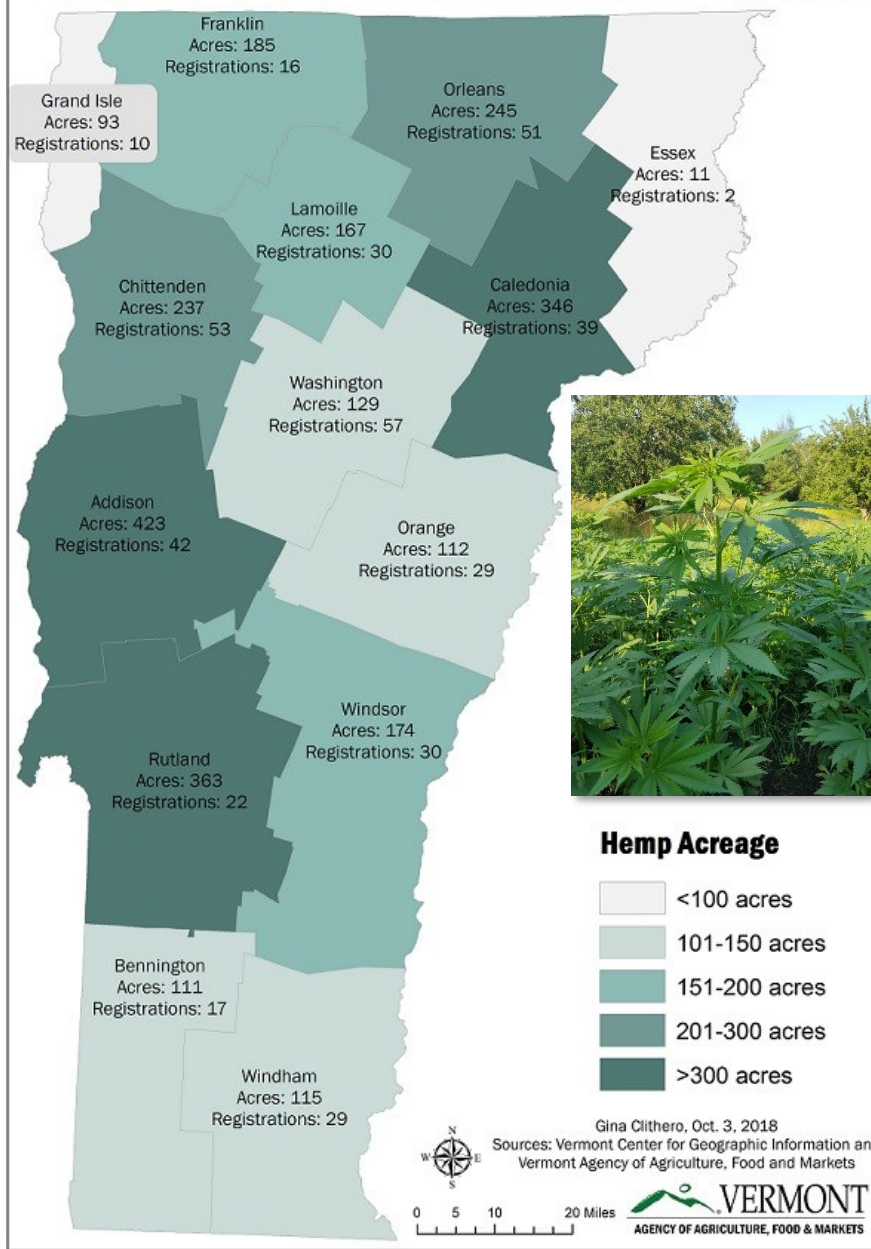
UNDER THE FARM BILL, VERMONT MUST:

- TRACK GROWERS
- TRACK THE LOCATION OF FIELDS/GREENHOUSES, AND
- CONDUCT PRE-HARVEST TESTING TO VERIFY THE THC CONTENT IS 0.3% OR LESS.

In Vermont, hemp is considered an "agricultural product" when grown by an individual that is registered with Vermont Agency of Agriculture, Food & Markets (the "Agency") as part of its pilot program. Cannabis sativa L. with a THC concentration greater than 0.3 percent on a dry weight basis is not hemp and is not an agricultural product.

The Agency through its Hemp Program, authorized under 6 V.S.A., chapter 34, accepts registrations from interested hemp growers and processors. Growers are registrants in possession of viable seed, live and harvested plants. Growers can cultivate plants in fields or greenhouses, and may store, dry and transport their hemp crops. Processors are registrants in possession of harvested plants or non-viable seed. Processors will process harvested crops into end products such as pre-rolls, concentrates, seed hearts, pressed oils, fiber and hemp-infused products. Processors may also transport, dry and store harvested crops from registered growers, and may market and broker harvested crops.

Registered Hemp Growers and Acreage in Production





PUBLIC HEALTH & AG RESOURCE MANAGEMENT

TICK PROGRAM

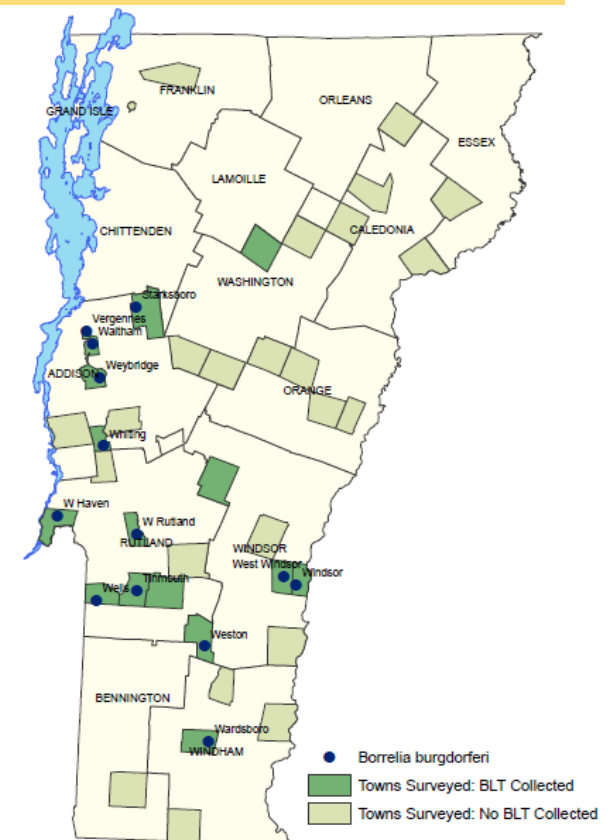
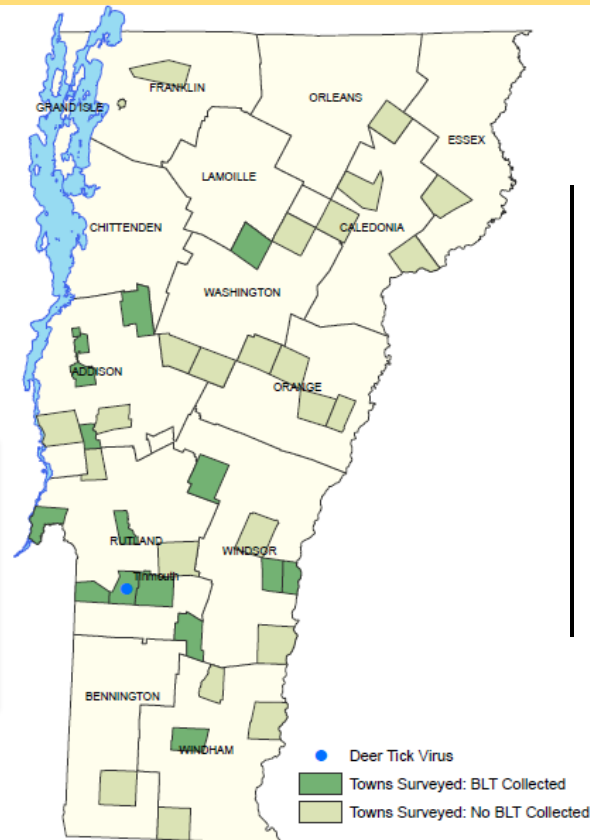
In 2018, the Vermont Agency of Agriculture, Food & Markets (VAAFM) completed the fourth year of a five-year statewide tick survey in which every town in the state will be sampled. Ticks were collected in the spring and fall and tested for five tick-borne pathogens: *Borrelia burgdorferi*, *Anaplasma phagocytophilum*, *Babesia microti*, *Borrelia miyamotoi*, and Deer Tick Virus (a variant of Powassan virus; only ticks collected in the fall season were tested for DTV). A total of 35 towns were surveyed in 2018, representing towns from 11 of Vermont's 14 counties. A single site in each town was chosen by selecting a road from the Vermont Delorme Atlas and then going to that road to look for suitable habitat for ticks. The ticks from the survey were identified to species at the VAAFM laboratory in Berlin and placed individually in vials for molecular testing for diseases.

The VAAFM laboratory in Burlington did the testing using RT-PCR testing.

A total of 108 ticks were collected: 97 blacklegged ticks and 11 dog ticks. The total amount of ticks per town ranged from 0 to 22, with an average of 2 ticks per town.

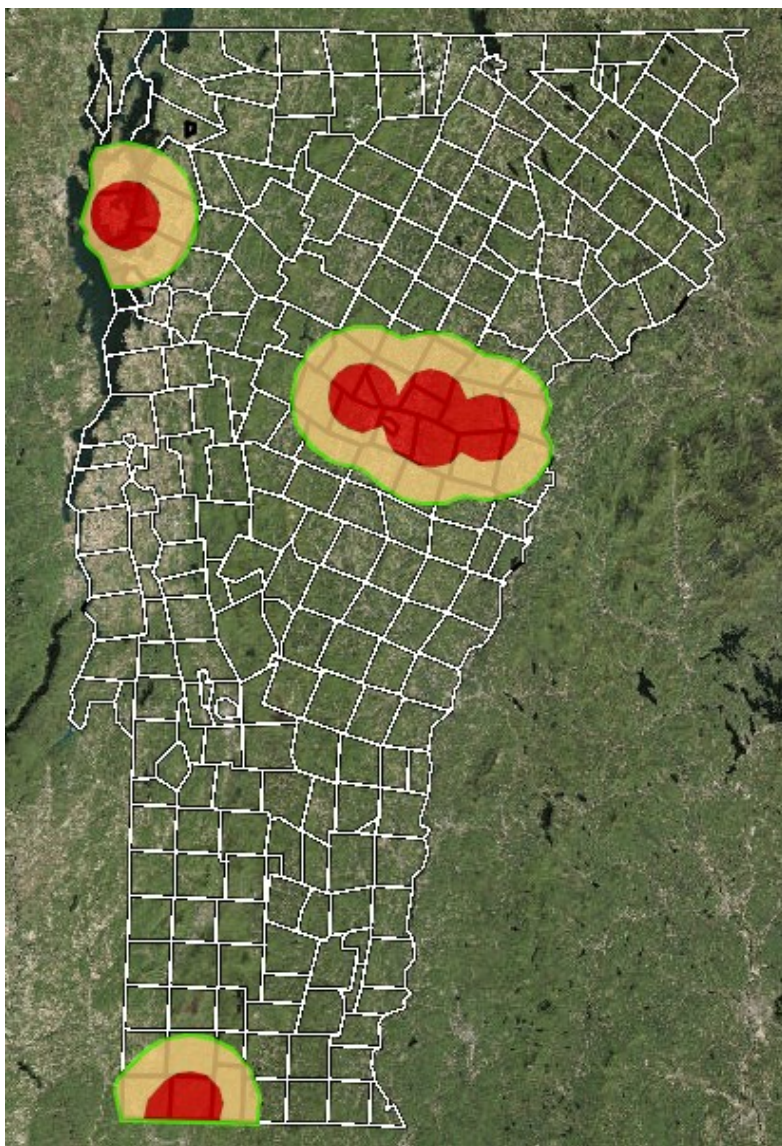
There are 14 known species of ticks in Vermont. The blacklegged tick (*Ixodes scapularis*), more commonly known as the deer tick, is the most abundant tick in Vermont. The blacklegged tick is responsible for over 99% of all tick-borne diseases reported to the Vermont Department of Health. These ticks can transmit Lyme disease, anaplasmosis, babesiosis, *Borrelia miyamotoi* disease, and Powassan virus disease.

	Pathogens Found	# of Ticks	% Infected
Bo	<i>Borrelia burgdorferi</i> (Lyme)	55	56.70%
An	<i>Anaplasma phagocytophilum</i>	8	8.25%
Ba	<i>Babesia microti</i>	1	1.03%
Bm	<i>Borrelia miyamotoi</i>	3	3.09%
DTV	Deer Tick Virus *only ticks collected during the fall season were tested for DTV	1	1.72%



EMERALD ASH BORER PROGRAM

PUBLIC HEALTH & AG RESOURCE MANAGEMENT



THE EMERALD ASH BORER WAS FIRST DISCOVERED IN VERMONT IN FEBRUARY 2018, AND HAS ALSO BEEN CONFIRMED IN ORANGE, WASHINGTON, CALEDONIA, GRAND ISLE AND BENNINGTON COUNTIES.

Emerald Ash Borer (EAB) was discovered in Vermont for the first time in late February, 2018. The invasive pest was found on private property in Orange County by a forester conducting a land management survey for the property owner. The evidence of EAB was hidden well, deep in the woods, but knowing what to look for was important for the forester in identifying the signs of EAB.

EAB larvae kill ash trees by tunneling under the bark and feeding on the part of the tree that moves water and sugars up and down the trunk. It was first discovered in North America in the Detroit area in 2002, and over the past sixteen years it has decimated ash populations. In 2018, EAB was also detected for the first time in Maine and Rhode Island and is known to occur in 35 states and five Canadian provinces. Ash trees comprise approximately 5% of Vermont forests and are also a very common and important urban tree. EAB threatens white ash, green ash and black ash in Vermont and could have significant ecological, cultural, and economic impacts.



VERMONT APIARY PROGRAM

PUBLIC HEALTH & AG RESOURCE MANAGEMENT

The Vermont Agency of Agriculture, Food and Markets' Apiary Inspection Program works to ensure that Vermont beekeepers comply with the Vermont Apiary Law. The duties of the apiary inspector emphasize technical assistance and education as well as the regulatory component.

Specific activities performed by this inspector include:

- Provide technical assistance to beekeepers to maintain healthy, productive hives.
- Inspect bee hives for the presence of diseases and pests.
- Coordinate sellers and buyers of honey, bees wax, bees and other hive products.
- Assist VT beekeepers in getting State and Federal approval of new mite control materials.
- Provide judging for honey and honey products at Fairs and Field Days.
- Assist fruit and vegetable growers with securing honey bees to pollinate crops.
- Work with apiculture officials in other states and at the Federal level on honey bee related issues.
- Issue Health Certificates to beekeepers moving bees out of state, if needed.
- Present talks to beekeepers, schools, and civic groups about honey bees and pollination.

The Vermont beekeeping industry has grown steadily over the last decade. There are now approximately 2,000 beekeepers owning about 11,000 hives in Vermont. These beekeepers have 2,500 locations where they keep their bees throughout the state. While most are hobby beekeepers with just a few hives kept at home, there are several commercial operations with upwards of 1,200 hives and dozens of locations each, mostly on farms, primarily on the western side of the state, along the Champlain Valley. A few commercial operations are also migratory in nature. These operations typically take their bees to the southern U.S for the winter and return to Vermont when the weather improves in the spring. While honey production is the primary goal of many beekeepers, most of the commercial operations also derive a significant portion of their income by providing bees for pollination services. Apples are the main crop, with pumpkins, blueberries and various small fruits and vegetable crops also pollinated.



VERMONT AGRICULTURAL & ENVIRONMENTAL LABORATORY



NEW LABORATORY FACILITY ON VTC CAMPUS

In August of 2011, Tropical Storm Irene flooded the state office complex in Waterbury, destroying laboratories for both the Vermont Agency of Agriculture, Food & Markets and the Agency of Natural Resources. While accommodations were made for lab space at UVM and Berlin by splitting up the lab, there remained a need to establish a new location to bring all lab services under one roof again. In January of 2018, a ground breaking took place at Vermont Technical College in Randolph Center to begin this process. The site on the campus of the Vermont Technical College will be home to the new lab in April of 2019. The lab will continue its service to Vermonters by monitoring various health and safety issues throughout the state -- everything from water quality, dairy, maple, hemp to ticks and mosquitos. The 36-thousand square-foot facility is a \$20 million dollar project and is the last major state government building reconstruction project following Tropical Storm Irene.

The Vermont Agricultural & Environmental Laboratory (VAEL) is the result of the merger in July 2015 of the DEC and AAFM laboratories. VAEL provides analytical services to the Vermont Agency of Agriculture, Food & Markets (AAFM), the Vermont Agency of Natural Resources (ANR) and, by contract, with other organizations.



VTC CAMPUS

NEW VAEL LOCATION

NEW LAB WORK AREA ON VTC CAMPUS



RANDOLPH CTR. VT

ADMINISTRATION DIVISION

VAAFM NEWS

THE AGENCY, THROUGH ITS COMMUNICATIONS DEPARTMENT, HAS COMMITTED TO TELLING THE STORIES OF VERMONT'S AGRICULTURE COMMUNITY, THROUGH VIDEO, SOCIAL MEDIA, AGENCY WEB CONTENT, AND ANY OTHER MEANS LIKE FACEBOOK LIVES. WE DO THIS TO ENSURE THAT THE PUBLIC SEES THE REAL PEOPLE AND COMMUNITIES THAT ARE BEHIND VERMONT'S AGRICULTURAL AND WORKING LANDS CULTURE.

CREEMEE FROM A COP

THE MISSION OF THIS PROGRAM IS TO PROMOTE VERMONT DAIRY THROUGH POSITIVE INTERACTIONS OF VERMONT LAW ENFORCEMENT AND MEMBERS OF THEIR COMMUNITY.

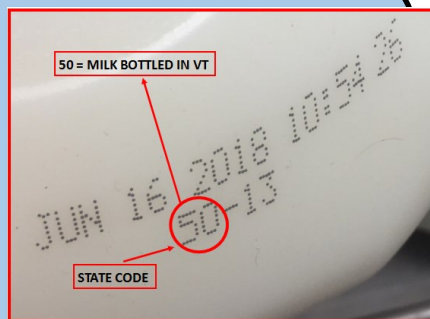
PARTICIPATING VENDOR

CREEMEE
FROM A COP

ADMINISTRATION DIVISION VARIOUS EFFORTS

KNOW THE CODE!
LOOK FOR "50"

IF YOU DESIRE TO SUPPORT VERMONT DAIRY FARMERS BY PURCHASING MORE VERMONT MILK, ONE WAY TO DO SO IS TO FIND MILK THAT IS BOTTLED IN VERMONT. OUR STATE IS HOME TO LARGE DAIRY CO-OPS WHO SHIP YOUR LOCAL FARMERS MILK TO A NUMBER OF MILK BOTTLERS AND PROCESSORS IN THE NEW ENGLAND AREA. HOWEVER, MUCH OF IT GOES TO BOTTLERS IN VERMONT, WHICH MEANS IF YOU CAN FIND "50" AT YOUR LOCAL GROCERY, YOU ARE LIKELY SUPPORTING VERMONT DAIRY FARMERS BY PURCHASING THAT MILK.



FANTASTIC FARMER

AT THE VERMONT AGENCY OF AGRICULTURE, FOOD & MARKETS, OUR MISSION IS TO SUPPORT FARMERS IN THEIR EFFORTS TO GROW, CULTIVATE, AND DELIVER THEIR PRODUCTS TO THE CONSUMER, IN A WAY THAT RESPECTS THE HERITAGE, CULTURE, AND ENVIRONMENTAL STEWARDSHIP



THAT OUR FARMERS AND FARMING COMMUNITY STRIVE FOR EVERY DAY. WE PRODUCE A FANTASTIC FARMER VIDEO TO TELL THE STORIES THAT AREN'T BEING TOLD ABOUT OUR STATE'S FANTASTIC FARMERS AND TO RELATE TO ALL VERMONTERS HOW OUR FARMERS ARE WORKING FOR ALL OF US.

AGRIVIEW IS A MONTHLY PUBLICATION OF THE VERMONT AGENCY OF AGRICULTURE, FOOD & MARKETS. ITS MISSION IS TO EDUCATE AND INFORM VERMONTERS ABOUT ISSUES, EVENTS, AND DISCUSSIONS THAT IMPACT THE STATE'S AGRICULTURAL INDUSTRY AND THE PEOPLE THAT WORK

IN IT. IN SEPTEMBER, AGRIVIEW TURNED 80 YEARS OLD! THE AGENCY OF AGRICULTURE RECOGNIZES THE IMPORTANCE OF THIS PUBLICATION TO MANY IN OUR FARMING COMMUNITIES. DURING TODAY'S WORLD OF MEDIA CONSOLIDATION, DIGITAL MEDIA, AND PRINT DELIVERY DECLINE, WE ARE WORKING HARD TO CONTINUE AGRIVIEW FOR ANOTHER 80 YEARS!



AGRIVIEW

